

REMARKS

The Office Action mailed May 2, 2005 has been carefully considered. Claims 1-15 are currently pending. Claims 1 and 14 have been amended. Applicant would like to thank the Examiner for indicating that claims 14 and 15 contain allowable subject matter.

Claim 1 has been amended to more clearly recite the claimed invention. In particular, claim 1 has been amended to recite “intermittently injecting a light transmissive fluid and a contrast fluid through the catheter into the catheter’s distal-end sleeve.” The Examiner indicated that the addition of this recitation would place claim 1 in condition for allowance in a telephonic interview with the undersigned on June 21, 2005. Support for this amendment is found, *inter alia*, in Paragraph [0036] and Fig. 5 of the specification of the published application. No new matter has been added by this Amendment.

Claim 14 has been rewritten in independent form to incorporate all the limitations of claims 10 and 13, as indicated by the Examiner to place claim 14 in condition for allowance.

A. Rejections under 35 U.S.C. § 103(a)

Claims 6-9¹

Claims 6-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,019,075 to Spears *et al.* (“Spears”) in combination with United States Patent No. 5,700,243 to Narciso, Jr. (“Narciso”). These rejections are respectfully traversed.

Applicant respectfully submits that neither Spears nor Narciso discloses, teaches, or suggests a “fiber-optic bundle . . . adapted for introduction into and slidably associated with the catheter lumen after the catheter’s distal-end sleeve is positioned within the target region, and the guidewire is removed.” The Examiner submits that Spears discloses this element at col. 8, lines 11-18 and 31-45, with the language “the usual guide wire is replaced with an optical fiber 30.” (Examiner’s Office Action dated September 22, 2004). Applicant respectfully submits that Spears here discloses using the optical fiber instead of a guidewire, not using the guidewire and optical fiber in succession. Applicant respectfully directs the Examiner’s attention to col. 8, lines 3-15, where Spears discusses the

¹ Applicant addresses the claims in the order addressed by the Examiner in the Office Action dated May 2, 2005.

prior art including the use of a guidewire. Applicant submits that when col. 8, lines 31-45, is read in light of this prior discussion, it becomes apparent that Spears discloses using permanent optical fibers, and the “usual guide wire” mentioned at col. 8, line 33 is referring to prior art embodiments. Thus, Spears does not suggest, and in fact teaches away from, a “fiber-optic bundle . . . adapted for introduction into and slidably associated with the catheter lumen after the catheter’s distal-end sleeve is positioned within the target region, and the guidewire is removed,” as recited in claim 6.

Narciso fails to remedy the deficiencies in Spears. As the Examiner has acknowledged, Narciso does not teach that the fibers are removable. (Examiner’s Office Action dated May 2, 2005). Instead, Narciso teaches that the fiber-optic bundle is integral with the catheter. (Col. 2, lines 14-18). Thus, Narciso does not suggest, and in fact teaches away from, a “fiber-optic bundle . . . adapted for introduction into and slidably associated with the catheter lumen after the catheter’s distal-end sleeve is positioned within the target region, and the guidewire is removed,” as recited in claim 6.

Applicant also respectfully submits that neither Spears nor Narciso discloses, teaches, or suggests a handle that “permits for intermittent injections of both a light-transmissive fluid and a contrast fluid.” There is no mention in either Spears or Narciso of a device utilizing both a light-transmissive fluid and a contrast fluid.

Therefore, both Spears and Narciso, either singly or in combination, fail to disclose each and every element of amended claim 6. The rejection of claim 6 should be withdrawn. As claims 7-9 depend from independent claim 6, Applicant also respectfully submits that the rejections of these claims should be withdrawn, for at least this reason.

Claims 1 and 3-5

Claims 1 and 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Spears in combination with Narciso. These rejections should be withdrawn. The Examiner stated that the rejections of claims 1 and 3-5 were based on the same rationale as the rejections of claims 6-9. Therefore, as both Spears and Narciso, either singly or in combination, fail to disclose every element of claims 6-9, the same is true for claims 1 and 3-5. In particular, claims 1 and 3-5 recite “removing the guidewire from the catheter, [and] introducing through the catheter a fiber-optic bundle having a light-diffusing tip, until said tip is positioned adjacent the catheter juncture.” As discussed above, Spears and Narciso do not disclose, teach, or suggest such features.

Moreover, Spears and Narciso do not, either singly or in combination, teach, suggest, or disclose the step of “intermittently injecting a light transmissive fluid and a contrast fluid through the catheter into the catheter’s distal-end sleeve.” Therefore, for this reason as well as the reasons discussed above, Applicant respectfully submits that the rejection of claims 1 and 3-5 should be withdrawn.

Claim 2

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Spears in combination with Narciso, and further in view of United States Patent No. 5,445,608 to Chen *et al.* (“Chen”). As discussed above, Spears and Narciso do not render claim 1, upon which claim 2 depends, unpatentable. Chen fails to remedy the deficiencies in Spears and Narciso. More particularly, Chen does not teach, suggest, or disclose “removing the guidewire from the catheter, [and] introducing through the catheter a fiber-optic bundle having a light-diffusing tip, until said tip is positioned adjacent the catheter juncture,” or “intermittently injecting a light transmissive fluid and a contrast fluid through the catheter into the catheter’s distal-end sleeve.” Therefore, this rejection should be withdrawn.

Claims 10-12

Claims 10-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,041,109 to Abela (“Abela”) in combination with U.S. Patent No. 6,547,787 to Altman *et al.* (“Altman”). These rejections are respectfully traversed.

Applicant respectfully submits that neither Abela nor Altman discloses, teaches, or suggests “a flexible, non-inflatable, translucent distal-end sleeve joined to the main-body sleeve” or “a fiber-optic bundle having a light-diffusing tip,” wherein “light scattering” is produced in part by the translucent sleeve and the tip, as recited in claim 10. Instead, Abela teaches the use of a “microlens [which] causes the laser beam exiting from the optical fiber to be dispersed so that only a portion of the beam exits from the tip of the catheter. The remaining portion of the beam is dispersed or scattered back into the catheter tip itself.” (Col. 5, line 65 to col. 6, line 9). Abela also teaches the use of a window in combination with a mirror on one-half of the interior surface of the catheter, which “enables all of the radiation to be directed outwardly through only one side of the tube.” (Col. 9, line 65 to col. 10, line 3). Abela, therefore, teaches away from a translucent sleeve and light scattering tip used to scatter light, and instead focuses a portion of the light through a lens or directs the light through a window.

Altman fails to remedy the deficiencies in Abela, as Altman also fails to disclose, teach, or suggest “a flexible, non-inflatable, translucent distal-end sleeve joined to the main-body sleeve” or “a fiber-optic bundle having a light-diffusing tip,” wherein “light scattering” is produced in part by the translucent sleeve and the tip, as recited in claim 10.

Therefore, both Abela and Altman, either singly or in combination, fail to disclose each and every element of claim 10. The rejection of claim 10 should be withdrawn. As claims 11-12 depend from independent claim 10, Applicant also respectfully submits that the rejections of these claims should be withdrawn.

Claim 13

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abela in combination with Altman, and further in view of United States Patent No. 5,417,667 to Tennican *et al.* (“Tennican”). As discussed above, Abela and Altman do not render claim 10, upon which claim 13 depends, unpatentable. Tennican fails to remedy the deficiencies in Abela and Altman. More particularly, Tennican does not teach, suggest, or disclose “a flexible, non-inflatable, translucent distal-end sleeve joined to the main-body sleeve” or “a fiber-optic bundle having a light-diffusing tip,” wherein “light scattering” is produced in part by the translucent sleeve and the tip. Thus, this rejection should be withdrawn.

B. Claims 14-15

The Examiner indicated that claims 14-15 would be allowable if rewritten in independent form to include all recitations of the base claim and any intervening claims. Claim 14 has been rewritten in independent form. Claim 15 depends on claim 14. Therefore, claims 14-15 are allowable.

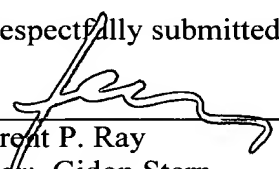
CONCLUSION

In view of the above amendments and remarks, it is believed that claims 1-15 are in condition for allowance. Should the Examiner not agree with Applicant's position, a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

An estimated claim fee in the amount of \$200 is believed to be due. Please charge this fee, and any additional fees that may be required, to Jones Day deposit account no. 503013.

Date: July 27, 2005

Respectfully submitted,


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